

Schizachyrium scoparium - Bouteloua (curtipendula, gracilis) - Carex filifolia Herbaceous Vegetation

COMMON NAME	Little Bluestem - Grama (Side-oats, Blue) - Threadleaf Sedge
SYNONYM	Northern Great Plains Little Bluestem Prairie
PHYSIOGNOMIC CLASS	Herbaceous vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/semi-natural (V.A.5.N)
FORMATION	Medium-tall sod temperate or subpolar grassland (V.A.5.N.c.)
ALLIANCE	<i>Schizachyrium scoparium</i> - <i>Bouteloua curtipendula</i> Herbaceous Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Upland

RANGE

Globally

This community is found in western North Dakota, western South Dakota, eastern and northern Wyoming, central and eastern Montana, southern Saskatchewan, and southern Manitoba.

Jewel Cave National Monument

This community is best developed on the ridgecrest in the southwest part of the Monument, and in the area of the Pass Creek Road. Smaller stands occur throughout the study area, especially in openings in *Pinus ponderosa* / *Schizachyrium scoparium* Wooded Herbaceous Vegetation.

ENVIRONMENTAL DESCRIPTION

Globally

This community is usually found on gentle to steep slopes with variable aspects (Thilenius 1972, Hansen et al. 1984, Johnston 1987, Hansen and Hoffman 1988). The soil may be loamy sand, sandy loam, loam, or clay loam. There may be a substantial component of gravel. Hansen et al. (1984) found 7-36% gravel by weight in 16 stands in western North Dakota. The soils are typically shallow and occur over sandstone or limestone (Johnston 1987, Thilenius et al. 1995).

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Mappable stands of this vegetation type were found on gentle slopes with southerly exposures.

MOST ABUNDANT SPECIES

Globally

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Bouteloua curtipendula</i> , <i>Bouteloua gracilis</i> , <i>Carex filifolia</i> , <i>Schizachyrium scoparium</i>

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<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Schizachyrium scoparium</i> , <i>Psoralea argophylla</i> , <i>Echinacea angustifolia</i>

DIAGNOSTIC SPECIES

Globally

Schizachyrium scoparium, *Carex filifolia*, *Bouteloua gracilis*, *Andropogon gerardii*

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Jewel Cave National Monument
Schizachyrium scoparium

VEGETATION DESCRIPTION

Globally

This community is predominantly composed of graminoid species less than 1 m tall. Occasional *Pinus ponderosa* are scattered throughout the type. The vegetation cover is moderate to high. Thilenius et al. (1995) found that vegetation cover was 44% in Wyoming and Hansen and Hoffman (1988) found 75% cover in North Dakota. The dominant species is *Schizachyrium scoparium* with *Bouteloua curtipendula*, *B. gracilis*, and *Carex filifolia* as associates or co-dominants. *Andropogon gerardii*, *Carex inops* ssp. *heliophila*, *C. eleocharis*, *Koeleria macrantha* and *Calamovilfa longifolia* are often present. *C. longifolia* may be abundant on sandier soils. *Muhlenbergia cuspidata*, *Stipa comata*, *Pascopyrum smithii*, and *Nassella viridula* may also be present. *Pseudoroegneria spicata* may be found in the western portions of this community (Jones 1992). In Manitoba, the graminoids *Festuca ovina* and *Elymus trachycaulus* and the lichen *Selaginella densa* are more abundant (Greenall 1995). Forbs do not contribute greatly to the canopy, but many species may be found in this community (Hanson and Whitman 1938). Among the forbs that may be found are *Echinacea angustifolia*, *Aster oblongifolius*, *A. ericoides*, *Gaura coccinea*, *Lygodesmia juncea*, *Helianthus pauciflorus* ssp. *pauciflorus*, *Rosa arkansana*, *Liatris punctata*, *Psoralea argophylla*, *Dalea purpurea*, *Phlox hoodii*, and *Campanula rotundifolia*. There are very few woody species; those that are present are usually short shrubs such as *Artemisa frigida*, *Juniperus horizontalis*, and *Yucca glauca*. Litter often accumulates and may cover more than 50% of the ground (Hirsch 1985).

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Two mappable stands of this vegetation type were found. Herbaceous cover estimates were between 25 and 75% with *Schizachyrium scoparium* clearly dominant. This type is relatively species-rich with prairie graminoids and forbs well-represented.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G3

RANK JUSTIFICATION

DATABASE CODE Cegl001681

COMMENTS

Globally

Fire likely played a major role in this type. Periodic fire likely helped graminoid production and deterred tree growth.

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